

**APPENDIX C**

**MERCED RIVER PRELIMINARY DESIGNS**



**Merced River  
Mile 51.4  
Riffles 5 and 6**

These riffles are at the upper-most end of the spawning reach of the Merced River. Salmon have made use of the three riffles previously restored near this reach.

This site has a split flow, but flows in the north channel are minimal. This site has good slope and good riparian vegetation. There is easy access off Merced Falls Road on the north.

The current substrate is large cobble, laden with silt. Restoration will involve excavating the channel and replacing the substrate with washed, graded spawning gravel. Two drop structures and one control structure will be used to maintain grade and create habitat variation.

The restored site will be approximately 80 feet wide and 400 feet long. Approximately 3,500 square yards of spawning gravel will be available after restoration.

The restoration is roughly estimated to cost \$87,400 and take three weeks to construct. No significant permitting issues are seen at this time.



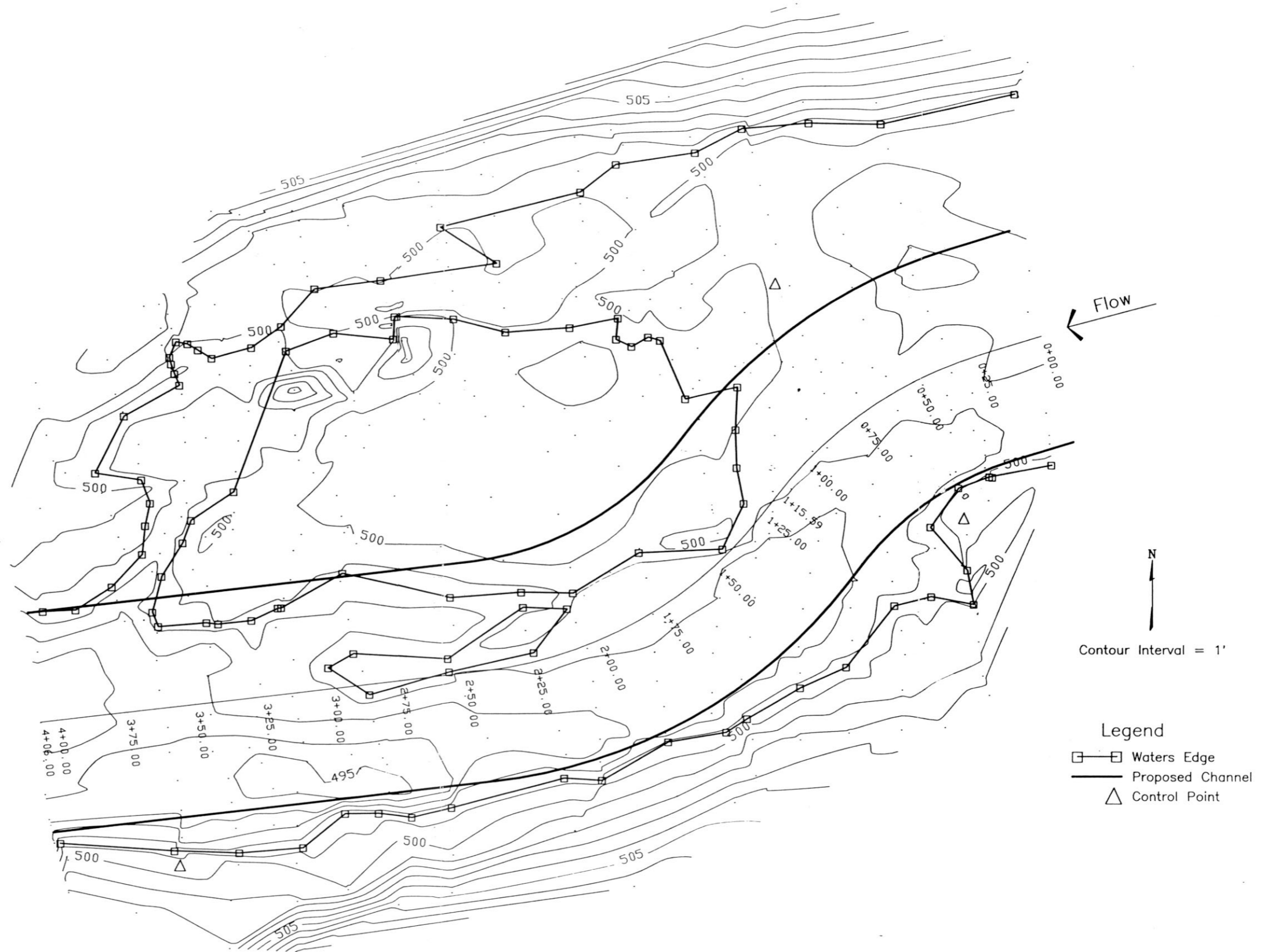
Merced River, Mile 51.4, Riffles 5 and 6.  
North and south channels looking downstream.



Merced River, Mile 51.4, Riffles 5 and 6.  
North channel looking downstream.



Merced River, Mile 51.4, Riffles 5 and 6.  
South channel looking downstream.



Merced River Riffles 5 & 6, Preliminary Design

DWR/SJD  
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**Merced River  
Mile 48.4  
Riffles 15, 16A, and 16B**

These riffles occur on both sides of a small island and immediately downstream of a riparian diversion.

This site has a steep slope that will be reduced through the use of drop structures. The site has good riparian vegetation and easy access off of Merced Falls Road on the north.

The current substrate is large cobble, laden with silt. Restoration will involve excavating the channel and replacing the substrate with washed, graded spawning gravel. Two drop structures and one control structure will be used to maintain grade and create habitat variation.

The restored site will be approximately 100 feet wide and 360 feet long. Approximately 4,000 square yards of spawning gravel will be available after restoration.

The restoration is roughly estimated to cost \$91,000 and take three weeks to construct. No significant permitting issues are seen at this time.



Merced River, Mile 48.4, Riffles 15 and 16.  
South channel below curve, looking downstream.



Merced River, Mile 48.4, Riffles 15 and 16.  
North channel looking downstream.



Merced River, Mile 48.4, Riffles 15 and 16.  
South channel looking downstream.



